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By: *Jeffrey Zablocki*
(person actually depositing)

Patent Application of: Jeff Zablocki, et al.

Title: Partial or Full A1 Agonists - N6 Heterocyclic 5' Thio Substituted Adenosine Derivatives

X Patent Application (54 pages, including claims)

X Transmittal Letter to the United States Designated/Elected Office (DO/EO/US)

X Postcard

X Copy of International Search Report

X Check

X Information Disclosure Statement

X Form PTO-1449

X Cited References

X Petition for Revival of an International Application for Patent Designating the U.S.
Abandoned Unintentionally under 37 CFR 1.137(b) and Patent Data Sheet

Attorney Docket No.:99,913-X

09/980533

JC10 Rec'd PCT/PTO 01 NOV 2001
PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 99,913-X)

In the Application of:)
)
Jeff Zablocki et al.)
)
Serial No. To Be Assigned)
)
Filed: Concurrently Herewith)
)
Title: Partial or Full A ¹ Agonists)
N ⁶ Heterocyclic 5' Thio Substituted)
Adenosine Derivatives)

INFORMATION DISCLOSURE STATEMENTAsst. Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97-1.98, applicants wish to make the following references of record in the above-identified application. These references may be material to the Examiner's consideration of the presently pending claims. Copies of the references cited below are enclosed along with a completed Form-1449.

U.S. Patents

	<u>Patent Number</u>	<u>Inventor</u>	<u>Issue Date</u>
1.	5,789,419	Lum et al.	August 4, 1998
2.	4,373,097	Stramentinoli et al.	February 8, 1983
3.	5,589,467	Lau et al.	December 31, 1996

McDONNELL BOEHNEN HULBERT & BERGHOFF
300 South Wacker Drive, 32nd Floor
Chicago, Illinois 60606

Printed Publications

1. B. Lerman et al, "Cardiac Electrophysiology of Adenosine", *Circulation*, Vol. 83 (1991) p. 1499-1509
2. J.C. Shryock, "Adenosine and Adenosine Receptors in the Cardiovascular System: Biochemistry, Physiology, and Pharmacology", *The Am. J. Cardiology*, Vol. 79 (1997) p. 2-10
3. J.D. Thornton, "Intravenous Pretreatment with A₁-Selective Adenosine Analogues Protects the Heart Against Infarction". *Circulation*, Vol. 85 (1992), p. 659-665
4. E. A. van Schaick et al., J., "Physiological Indirect Effect Modeling of the Antilipolytic Effects of Adenosine A₁-Receptor Agonists", *Pharmacokinetics and Biopharmaceutics*, Vol. 25 (1997) p. 673-694
5. P. Strong, "Suppression of non-esterified fatty acids and triacylglycerol in experimental animals by the adenosine analogue GR79236", *Clinical Science*, Vol. 84 (1993), p. 663-669
6. D. Thiebaud et al, "Effect of Long Chain Triglyceride Infusion on Glucose Metabolism in Man", *Metab. Clin. Exp.*, Vol. 31 (1982), p. 1128-1136
7. G. Boden et al., "Mechanism of Fatty-Acid-Induced Inhibition of Glucose Uptake", *J. Clin. Invest.*, Vol. 93, (1994) p. 2438-2446
8. P.J. Randle et al., "The Glucose Fatty-Acid Cycle Its Role in Insulin Sensitivity and the Metabolic Disturbances of Diabetes Mellitus", *Lancet* (1963) p. 785-789
9. Klitgaard, et al., "Contrasting Effects of Adenosine A₁ and A₂ Receptor Ligands in Different Chemoconvulsive Rodent Models," *Eur. J. Pharmacol* (1993), Vol. 224, pp. 221-228
10. G. Zhang, "Activation of adenosine A₁ receptors underlies anticonvulsant effect of CGS21680", *Eur. J. Pharmacol*, Vol. 255 (1994), p. 239-243
11. Knutsen, "N-Substituted Adenosines as Novel Neuroprotective A₁ Agonists with Diminished Hypotensive Effects", *J. Med. Chem.*, Vol 42 (1999) p. 3463-3477

JC10 Rec'd PCT/PTO 01 NOV 2001

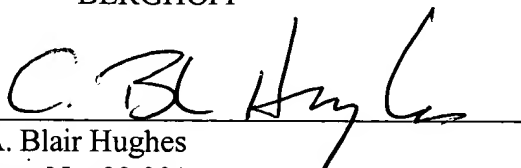
12. Vergauwen, et al., "Adenosine Receptors Mediate Synergistic Stimulation of Glucose Uptake and Transport by Insulin and by Contractions in Rat Skeletal Muscle", *J. Clin. Invest.* (1994) 93, 974-81
13. Gellai, et al., "CVT-124, a Novel Adenosine A1 Receptor Antagonist with Unique Diuretic Activity", *JPET*, (1998) 286, p. 1191-6
14. Wilcox. et al., "Natriuretic and Diuretic Actions of a Highly Selective Adenosine A₁ Receptor Anagonist," *J. Am. Soc. Nephrol.*, (1999) 10, p. 714-720
15. R.B. Clark, et al., "Partial agonists and G protein-coupled receptor desensitization", *TiPS*, Vol. 20 (1999), p. 279-286
16. D. M. Dennis et al., "Homologous Desensitization of the A1-Adenosine Receptor System in the Guinea Pig Atrioventricular Node," *JPET*, Vol 272 (1995), p. 1024-1035
17. Parsons, J., "Heterologous Desensitization of the Inhibitory A1 Adenosine Receptor-Adenylate Cyclase System in Rat Adipocytes", *Biol. Chem.* Vol 262 (1987) p. 841-847
18. Snowdy, S., et al. "A Comparison of an A1 Adenosine Receptor Agonist (CVT-510) with Diltiazem for Slowing of AV Nodal Conduction in Guinea-Pig", *British Journal of Pharmacology*, 126, p. 137-146 (1999).

Respectfully submitted,

McDONNELL BOEHNEN HULBERT &
BERGHOFF

Dated: November 1, 2001

By:


A. Blair Hughes
Reg. No. 32,901

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

99,913-X

Serial No.

To Be Assigned

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use several sheets if necessary)

Applicant:

Zablocki et al

Filing Date:

11/1/01

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U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	5,789,419	8/4/98	Lum et al.			
	4,373,097	2/8/93	Stramentinoli et al.			
	5,589,467	12/31/96	Lau et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	N

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

		B. Lerman et al, "Cardiac Electrophysiology of Adenosine", <i>Circulation</i> , Vol. 83 (1991) p. 1499-1509
		J.C. Shryock, "Adenosine and Adenosine Receptors in the Cardiovascular System: Biochemistry, Physiology, and Pharmacology", <i>The Am. J. Cardiology</i> , Vol. 79 (1997) p. 2-10
		J.D. Thornton, "Intravenous Pretreatment with A ₁ -Selective Adenosine Analogues Protects the Heart Against Infarction". <i>Circulation</i> , Vol. 85 (1992), p. 659-665
		E. A. van Schaick et al., J., "Physiological Indirect Effect Modeling of the Antilipolytic Effects of Adenosine A ₁ -Receptor Agonists", <i>Pharmacokinetics and Biopharmaceutics</i> , Vol. 25 (1997) p. 673-694
		P. Strong, "Suppression of non-esterified fatty acids and triacylglycerol in experimental animals by the adenosine analogue GR79236", <i>Clinical Science</i> , Vol. 84 (1993), p. 663-669

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

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		D. Thiebaud et al, "Effect of Long Chain Triglyceride Infusion on Glucose Metabolism in Man", <i>Metab. Clin. Exp.</i> , Vol. 31 (1982), p. 1128-1136
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		P.J. Randle et al., "The Glucose Fatty-Acid Cycle Its Role in Insulin Sensitivity and the Metabolic Disturbances of Diabetes Mellitus", <i>Lancet</i> (1963) p. 785-789
		Klitgaard, et al., "Contrasting Effects of Adenosine A ₁ and A ₂ Receptor Ligands in Different Chemoconvulsive Rodent Models," <i>Eur. J. Pharmacol</i> (1993), Vol. 224, pp. 221-228
		G. Zhang, "Activation of adenosine A ₁ receptors underlies anticonvulsant effect of CGS21680", <i>Eur. J. Pharmacol</i> , Vol. 255 (1994), p. 239-243
		Knutsen, "N-Substituted Adenosines as Novel Neuroprotective A ₁ Agonists with Diminished Hypotensive Effects", <i>J. Med. Chem.</i> , Vol 42 (1999) p. 3463-3477
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		Gellai, et al., "CVT-124, a Novel Adenosine A ₁ Receptor Antagonist with Unique Diuretic Activity", <i>JPET</i> , (1998) 286, p. 1191-6
		Wilcox. et al., "Natriuretic and Diuretic Actions of a Highly Selective Adenosine A ₁ Receptor Anagonist," <i>J. Am. Soc. Nephrol</i> , (1999) 10, p. 714-720
		R.B. Clark, et al., "Partial agonists and G protein-coupled receptor desensitization", <i>TIPS</i> , Vol. 20 (1999), p. 279-286
		D. M. Dennis et al., "Homologous Desensitization of the A ₁ -Adenosine Receptor System in the Guinea Pig Atrioventricular Node," <i>JPET</i> , Vol 272 (1995), p. 1024-1035
		Parsons, J., "Heterologous Desensitization of the Inhibitory A ₁ Adenosine Receptor-Adenylate Cyclase System in Rat Adipocytes", <i>Biol. Chem.</i> Vol 262 (1987) p. 841-847
		Snowdy, S., et al. "A Comparison of an A ₁ Adenosine Receptor Agonist (CVT-510) with Diltiazem for Slowing of AV Nodal Conduction in Guinea-Pig", <i>British Journal of Pharmacology</i> , 126, p. 137-146 (1999).
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